G. Comparison of Alternatives

G.1 Introduction

This section summarizes and compares the environmental advantages and disadvantages of the proposed West of Devers Upgrade Project and the alternatives evaluated in this EIS. This comparison is based on the assessment of environmental impacts of the Proposed Project and each alternative, as identified in Sections D (Environmental Impacts of Proposed Project and Alternatives), E (Cumulative Impacts), and F (Other NEPA Assessment). Section C introduces and describes the alternatives considered in this EIS; Appendix 5 is the Alternatives Screening Report, which documents all alternatives considered in the screening process. Section C and Appendix 5 include maps and diagrams illustrating all alternatives that have been retained for analysis and are compared within this section. This section is organized as follows:

- Section G.2 describes the NEPA regulatory requirements for alternatives comparison and Section G.3 describes the methodology used for comparing alternatives.
- Sections G.4 and G.5 compare route and system alternatives.
- Section G.6 defines the Environmentally Preferred Alternative, based on comparison of each alternative with the Proposed Project.
- Section G.7 compares the No Action Alternative with the alternative that is determined in Section G.6 to be overall environmentally preferred.

BLM Conclusion Regarding Environmentally Preferred Alternative. NEPA encourages lead agencies to make recommendations of the Environmentally Preferred Alternative(s) during EIS preparation and requires specifying the alternative or alternatives that are considered to be environmentally preferable at the time of the Record of Decision. This is ordinarily the alternative that causes the least damage to the biological and physical environment and best protects, preserves and enhances the resources that are present [BLM Manual H-1790-1, Ch. 9.7.1; 40 CFR 1505.2(b); and Forty Questions 6(a) and 6(b)]. The Environmentally Preferred Alternative would be the Phased Build Alternative (which incorporates the structure locations defined in the Tower Relocation Alternative). The Environmentally Preferred Alternative is illustrated in Figure G-1 (presented at the end of this section). The second preferred alternative would be the combination of the Tower Relocation Alternative, the Iowa Street 66 kV Underground Alternative, and the Proposed Project for the segments unaffected by the Relocation and Iowa Street alternatives. The least environmentally preferred option would be the Proposed Project with no modifications.

Conclusion Regarding BLM Agency Preferred Alternative.

The Draft EIR/EIS and this Final EIS describe the SCE Proposed Project and three alternatives, which are described in Section C and in more detail in Appendix 5:

- Tower Relocation Alternative
- Iowa Street 66 kV Underground Alternative
- Phased Build Alternative

BLM planning regulations and NEPA regulations allow definition of BLM's Agency Preferred Alternative in either the Draft EIS or the Final EIS (BLM Manual 1790-1, Ch. V(B)(4)(c) and NEPA Section 1502.14(e)). The BLM did not identify an Agency Preferred Alternative in the Draft EIR/EIS. While this section defines BLM's Agency Preferred Alternative, the BLM selected alternative may change before issuance of the Record of Decision.

The Tower Relocation Alternative and the Iowa Street Underground Alternative would not change the transfer capacity of the Proposed Project. They would each reduce environmental impacts in the specific areas around which they would be implemented. Therefore, BLM finds that those two alternatives are preferred over the Proposed Project segments that they would replace.

The Phased Build Alternative is not preferred over the Proposed Project. This alternative, if constructed as specified in the Draft EIR/EIS, would limit transfer capacity to about 3,000 MW when the Proposed Project would provide 4,800 MW of capacity. As shown in Table A-1, there are 4,696 MW of solar energy projects east of the Devers Substation. This indicates that the level of development contemplated by BLM, where BLM has either recently completed or recently begun the review process, would be in excess of the capacity of the Phased Build Alternative. Reviewing the CAISO queue allows a similar conclusion. Although the capacity of the alternative would satisfy the 2,200 MW level of development originally anticipated and shown in Table A-2, Table A-3 shows that at least another 3,100 MW of projects are planned for eastern Riverside County that entered the queue relatively recently.

Given the federal priority to maximize development of renewable energy projects, the larger capacity of the Proposed Project is considered to be important. The Phased Build Alternative would limit the capacity achievable in the corridor to result in a decrease of construction disturbance of about 25 percent in comparison with the Proposed Project. In addition, the Phased Build Alternative would require over 100 interset structures to meet structural requirements along the line segment where the 220 kV structures are retained, which reduces the visual benefit of the alternative that was originally stated in the Draft EIR/EIS.

Construction of the Proposed Project now would also reduce the likelihood of building future phases of the Phased Build Alternative, and this may avoid additional near-term construction disturbances in the corridor.

The Final EIR (published by the CPUC in December 2015) defined the Phased Build Alternative as the CEQA Environmentally Superior Alternative, because that alternative would have less ground disturbance and less severe visual effects. CEQA requires that an EIR define the alternative with least impacts (if that alternative is not the No Project Alternative). However, the CPUC's Administrative Law Judge and the Commissioners will consider other policy issues in the final decision on the West of Devers Upgrade Project.

No Action Alternative. The No Action Alternative includes transmission system options are considered to be likely to occur in the absence of the Proposed Project. As described in Section G.7, the No Action Alternative would have more severe environmental impacts than either the Proposed Project or the alternatives considered in this EIS.

G.2 NEPA Requirements for Alternatives Comparison

Under NEPA the Draft EIS should identify the environmentally preferable or superior alternative from a range of alternatives considered if one exists at the draft stage. Commenters from other agencies and the public are also encouraged to address this question. However, in all situations, the environmentally preferable alternative must be identified in the Record of Decision on the Final EIS [Forty Questions No. 6(a) and 6(b)]. The answer to Forty Questions No. 6(a) states

> *A. Section 1505.2(b) requires that, in cases where an EIS has been prepared, the Record of Decision (ROD) must identify all alternatives that were considered, "...specifying the alternative or alternatives which were considered to be environmentally preferable." The environmentally preferable*

alternative is the alternative that will promote the national environmental policy as expressed in NEPA's Section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources.

The Council recognizes that the identification of the environmentally preferable alternative may involve difficult judgments, particularly when one environmental value must be balanced against another. The public and other agencies reviewing a Draft EIS can assist the lead agency to develop and determine environmentally preferable alternatives by providing their views in comments on the Draft EIS. Through the identification of the environmentally preferable alternative, the decisionmaker is clearly faced with a choice between that alternative and others, and must consider whether the decision accords with the Congressionally declared policies of the Act.

In addition, the BLM NEPA Handbook (H-1790-1, Chapter 9.2.7.3) requires identification of an agency preferred alternative, which would best fulfill the purpose and need of the project, in either the Draft or Final EIS. [40 CFR 1502.14(e); Forty Questions No. 4(a), 4(b), and 4(c)]

G.3 Comparison Methodology

The following methodology was used to compare alternatives in this EIS:

- **Step 1: Identification of Alternatives.** A screening process (described in Section C and Appendix 5) was used to identify 16 alternatives to the Proposed Project. A No Action Alternative was also identified. This range of alternatives is sufficient to foster informed decision-making and public participation. No other feasible alternatives meeting most of the project objectives were identified that would lessen or alleviate significant impacts.
- **Step 2: Determination of Environmental Impacts.** The environmental impacts of the Proposed Project and alternatives were identified in Sections D, E, and F, including the potential impacts of transmission line, subtransmission line, distribution line, telecommunications, and substation upgrades construction and operation, and potential connected actions. For each area of the Proposed Project where an alternative is considered, the comparison in Section G.4 begins with a summary of the significant impacts that cannot be mitigated (Class I impacts). Highlighting these areas of significant impacts identifies whether an alternative would be capable of eliminating significant unavoidable environmental effects of the Proposed Project, and whether an alternative would create new significant impacts. This simplifies identification of the environmentally preferred alternatives while considering all issue areas equally.
- **Step 3: Comparison of Proposed Project and Alternatives.** The environmental impacts of the Proposed Project were compared to those of each alternative to determine the environmentally preferred alternative. The preferred proposed route was also compared with system alternatives. The overall environmentally preferred alternative was then compared to the No Action Alternative (Section G.5).

Determining an environmentally preferred alternative requires balancing many environmental factors. In order to identify the environmentally preferred alternative, the most important impacts in each issue area were identified and compared in detailed comparison tables in Section G.4. Each of these tables presents a preference ranking and a brief explanation of the ranking for each environmental issue area.

Although this EIS identifies an environmentally preferred alternative, it is possible that the decision-makers could balance the importance of each impact area differently and reach different conclusions. The comparisons presented in this section highlight situations where an alternative would create impacts in one area as a consequence of avoiding impacts to another area.

G.4 Comparison of Alternatives

The following sections summarize the significant impacts that cannot be mitigated (Class I impacts), as well as the advantages and disadvantages of each alternative, and present a determination of whether the Proposed Project or an alternative is considered to be environmentally preferred within each area. The preferred alternative is identified for each issue area. In the summary tables for each area, an alternative shown as "preferred" may still have environmental effects, but when compared with the other alternatives, the environmental effects would be minimized with the preferred alternative.

Three alternatives to the Proposed Project are addressed in this section. They are described in Section C of this EIS, and in more detail in Appendix 5 (Alternatives Screening Report). Table G-1 briefly summarizes the characteristics of each alternative and explains how each could combine with the other alternatives analyzed.

G.4.1 Tower Relocation Alternative

The Proposed Project was designed to follow an existing electric utility corridor. Use of the established corridor and many existing access roads would minimize the duration and intensity of construction-related impacts. The Tower Relocation Alterative also uses the existing SCE corridor, but would require moving Proposed Project structures further from residences in Segment 4 (Beaumont), Segment 5 (East Banning/ Morong), and Segment 6 (Whitewater). Following is a comparison of the **Tower Relocation Alternative** with the Proposed Project.

Comparison of Impacts

Table G-2 presents a comparison of the Tower Relocation Alternative with the Proposed Project for the environmental disciplines where there would be a difference in the level of impacts compared to the Proposed Project. This table does not include numerous disciplines where impacts are similar, and thus, are not factors in the comparison (agriculture, air quality, biological resources – vegetation, biological resources – wildlife, climate change, cultural resources, socioeconomics and environmental justice, geology and soils, hazards and hazardous materials, mineral resources, paleontological resources, recreation, transportation and traffic, utilities and public services, water resources and hydrology, wildland fire, and electrical interference).

The Tower Relocation Alternative is preferred because it would produce a less severe visual impact (compared to the Proposed Project) by relocating various tower pairs approximately 50 feet to the north of the proposed tower locations in Segments 4, 5, and 6. By shifting structures farther away from the closest residences, the Tower Relocation Alternative would achieve structure placements within the ROW that would appear more similar to the existing structure locations. As a result, the Tower Relocation Alternative would cause less incremental visual contrast, structure prominence, and view blockage compared to the Proposed Project when viewed from residential locations along the south side of the ROW.

Likewise, the Tower Relocation Alternative would reduce construction-related disturbance associated with the upgraded 220 kV lines by ensuring that relocated towers would be no closer to residences than the existing structures.

Table G-1. Summary of Alternatives Analyzed

Alternative Name	Description	System Transfer Capacity	Ground Disturbance	Construction Timeframe	Notes about Combining with Other Alternatives
Tower Relocation Alternative	• Locates certain of SCE's proposed transmission structures farther from residences in Segments 4, 5, and 6	4,800 MW (same as Proposed Project)	• Similar ground disturbance to Proposed Project.	• Requires a few additional months for construction due to additional outages and shoo-flies needed.	• This alternative applies to specific location in Segments 4, 5, and 6 and would be implemented in combination with the Proposed Project in the other areas of those segments, and in all of Segments 1, 2, and 3. • These alternative tower locations are incorporated into the Phased Build Alternative as well
Iowa Street 66 kV Underground Alternative	• Installs 1,600 feet of proposed overhead 66 kV subtransmission line underground within Iowa Street.	4,800 MW (same as Proposed Project)	• Additional ground disturbance within roadways from trenching for 1,600 feet and 2 transition structures, as opposed to construction of 9 overhead poles with the Proposed Project.	• Requires slightly more time for construction, but this short segment would not affect overall construction timeframe of the project.	• This alternative could be combined with either the Proposed Project or with the Tower Relocation Alternative • This alternative may not be combined with the Phased Build Alternative; the 66 kV subtransmission system may or may not be able to be retained in the Phased Build Alternative without being relocated

Table G-1. Summary of Alternatives Analyzed

Alternative Name	Description	System Transfer Capacity	Ground Disturbance	Construction Timeframe	Notes about Combining with Other Alternatives
Phased Build Alternative	• Retains existing double-circuit 220 kV transmission structures • Removes the two lines of existing single-circuit 220 kV structures and replaces them with one line of new double-circuit structures • All 220 kV conductors would be Drake 795 ACCR • On Morongo land, 220 kV structures would be relocated and rebuilt as TSPs as defined in SCE-Morongo ROW Agreement • Allows for future phased increases in corridor transmission capacity, as required	3,000 MW	• Requires 20 to 25 percent less new structure construction (and associated ground disturbance) in comparison to the Proposed Project	• Avoids near-term construction related to removing and re-building all towers, but would result in a need to install a greater number of temporary structures (shoo-flies), which could slow the pace of construction. • SCE has stated that the duration of construction could be similar to that of the Proposed Project	• This alternative incorporates the structure relocations defined in the Tower Relocation Alternative • This alternative may eliminate the need for the Iowa Street 66 kV Underground Alternative: SCE's 66 kV system may be able to be retained and may or may not need to be modified as it would in the Proposed Project

Due to a reduction in significant visual impacts and an increased distance of construction disturbances from residences and other sensitive receptors, ***the Tower Relocation Alternative has been found to be environmentally preferred*** compared to the Proposed Project in Segments 4, 5, and 6.

Table G-2. Comparison of the Proposed Project to Tower Relocation Alternative

Issue Area	Proposed Project	Tower Relocation Alternative
System Transfer Capacity	4,800 MW	4,800 MW
Land Use and BLM Realty	Greater disturbance of sensitive receptors (residences) during both construction and operation due to structures located closer to the edge of the ROW	**Preferred** Even though construction timeframe would be longer, towers and associated construction disturbance would be located farther from the edge of the ROW and sensitive receptors
Noise	More severe noise effects on sensitive receptors (residences) from construction activities and from corona noise and maintenance activities during operation	**Preferred** Noise impacts remain adverse, but would be reduced due to greater distance of structures to residences
Visual Resources	Significant adverse visual impacts on sensitive receptors (residences) during both construction and operation	**Preferred** Visual impacts reduced due to greater distance of towers from residences and other sensitive receptors

G.4.2 Iowa Street 66 kV Underground Alternative

The following sections compare the **Iowa Street 66 kV Underground Alternative** with the overhead 66 kV San Bernardino–Redlands-Tennessee subtransmission line component of the Proposed Project along a segment of Iowa Street in the City of Redlands. This alternative would require installation of 1,600 feet of 66 kV subtransmission line underground, rather than overhead on wood poles as defined in the Proposed Project.

Comparison of Impacts

Table G-3 presents a comparison of the Iowa Street 66 kV Underground Alternative with the Proposed Project for the environmental disciplines where there would be a difference in the level of impacts compared to the Proposed Project. This table does not include numerous disciplines where impacts are similar, and thus, are not factors in the comparison (agriculture, biological resources – vegetation, biological resources – wildlife, climate change, socioeconomics and environmental justice, land use and BLM realty, mineral resources, paleontological resources, recreation, wildland fire, and electrical interference). Although an underground route would have greater ground disturbance, traffic impacts and longer construction time, the Iowa Street 66 kV Underground Alternative is preferred because it would eliminate the long-term adverse visual impacts associated with the new overhead 66 kV subtransmission route along Iowa Street, adjacent to the Cottage Lane residential subdivision in Redlands.

This alternative would have more severe short-term impacts during construction in a number of resource areas (air quality, noise, traffic, water resources, and utilities). Construction of the alternative would also increase the likelihood of encountering cultural or paleontological resources. However, due to the elimination of the long-term visual impacts, ***the Iowa Street 66 kV Underground Alternative has been found to be the environmentally preferred alternative*** in this segment of the 66 kV subtransmission line component.

Table G-3. Comparison of the Proposed Project to Iowa Street 66 kV Underground Alternative

Issue Area	Proposed Project	Iowa Street 66 kV Underground Alternative
System Transfer Capacity	4,800 MW	4,800 MW
Air Quality	**Preferred** Less equipment used installing overhead poles compared to trenching and hauling of excavated material, back fill, concrete, etc.	Greater construction impacts due to need for trenching for 1,600 feet
Cultural Resources	**Preferred** Less ground disturbance results in lower likelihood of encountering unknown resources or human remains.	Greater likelihood of encountering unknown resources or human remains due to trenching and increased ground disturbance
Geology and Soils	**Preferred** Less ground disturbance exposes less area to potential erosion	More extensive construction, including trenching, results in greater potential for erosion
Hazards and Hazardous Materials	**Preferred** Less likelihood of encountering contaminated soil	More extensive construction, including trenching, results in greater likelihood of encountering contaminated soils
Noise	**Preferred** No excavation and backfilling of a trench; less use of noise-generating equipment and shorter construction duration	Underground construction and trenching would have more severe short-term noise impacts and for a slightly longer duration
Paleontological Resources	**Preferred** Less ground disturbance results in lower likelihood of encountering paleontological resources.	Greater likelihood of encountering unknown resources due to additional ground disturbance from trenching
Transportation and Traffic	**Preferred** Less need for traffic controls and lane closures	More intense construction in road would increase likelihood of traffic congestion
Utilities and Public Services	**Preferred** Lower likelihood of affecting existing underground utilities with towers than trenching. Easier access to lines during outages.	Trenching for underground segment increases likelihood of affecting existing underground utilities. Greater maintenance and restoration time in the event of an outage.
Visual Resources	Adverse long-term visual impacts from the Cottage Lane residential subdivision on Iowa Street and Orange Avenue in the City of Redlands	**Preferred** Elimination of overhead segment in residential neighborhood eliminates long-term adverse visual impacts.
Water Resources and Hydrology	**Preferred** Less ground disturbance exposes less area to potential erosion	Trenching and more extensive construction results in greater potential for erosion, which could impact water quality

G.4.3 Phased Build Alternative

As defined in Final EIS Section C.4.3, the Phased Build Alternative would retain most of the existing 220 kV double-circuit structures, require demolition of the existing single-circuit structures and construction of one new set of double-circuit, and install high-capacity conductors (Drake ACCR) on all 4 circuits. For

the new double-circuit towers in Segments 4, 5, and 6, the Phased Build Alternative incorporates the structure locations proposed in the Tower Relocation Alternative. Based on final design and uncertainty of SCE obtaining simultaneous outages, relocation of the 66 kV subtransmission lines and 12 kV distribution lines may or may not be required. The Phased Build Alternative would utilize the existing 220 kV structures in Segment 1, and the existing 66 kV poles would be unaffected, but may be too close to the existing 220 kV structures to allow reconductoring of those retained structures. If the 66 kV subtransmission line relocation is determined to be necessary, the Iowa Street Underground Alternative would be implemented to eliminate the only significant and unmitigable impact from the long-term presence of the 66 kV line when viewed from the Cottage Lane residential subdivision (Impact VR-8).

Up to 110 additional interset towers would be required where the spans between retained towers exceed the strength of existing towers, and at locations where conductor blowout (where conductors could sway horizontally, potentially result in insufficient horizontal safety clearance to the adjacent line) could occur. Interset structures would be required for about one-third of all spans along the retained line. The Phased Build Alternative would allow the retention of nearly 160 existing structures that would be demolished and re-built under the Proposed Project.

In Segment 5 on all Morongo land, the Phased Build Alternative structures would be exactly the same as those of the Proposed Project. All transmission facilities in the westernmost 3 miles would be removed and relocated south to the new ROW closer to I-10. In this segment, 19 pairs of new double-circuit tubular steel poles would be installed and the high-capacity conductor would be installed on the new poles. On the eastern portion of the Morongo land, all existing structures would be removed, and 30 pairs of new double-circuit lattice steel towers would replace the existing single-circuit towers (same as for the Proposed Project). High-capacity conductors would be installed on these new towers. As described in Section ES.3.2 and Appendix 5 (Section 4.4) of this Addendum, there are two options to the Phased Build Alternative for Segment 5. Implementing either of the options would ensure that there would be no future construction activity of new structures on Morongo land.

Comparison of Impacts

Table G-4 presents a comparison of the Phased Build Alternative with the Proposed Project for the environmental disciplines where there would be a difference in the level of impacts compared to the Proposed Project. This table does not include disciplines where impacts are similar, and thus, are not factors in the comparison (agriculture, climate change, socioeconomics and environmental justice, hazards and hazardous materials, mineral resources, recreation, utilities and public services, wildland fire, and electrical interference).

The Phased Build Alternative is preferred over the Proposed Project because it would reduce construction impacts due to the retention of about 160 existing structures. This would reduce the severity of Impacts AQ-1 and N-1. This reduced level of construction results in 20 to 25 percent less ground disturbance with the Phased Build Alternative, although impacts to biological resources and other water- and soil-related impacts would be less than significant with the implementation of mitigation for both the Proposed Project and the alternative. Additionally, all structures in this alternative would be located farther from the edge of the ROW than with the Proposed Project, so noise, dust, and construction disturbance would occur farther from sensitive receptors located at the edge of the ROW, compared to the Proposed Project. Furthermore, the Phased Build Alternative is preferred over the Proposed Project because it would reduce operational impacts (visual presence of the Proposed Project closer to the south edge of the ROW in Segments 4 and 6 for some residential locations. As a result, ***the Phased Build Alternative has been found to be environmentally preferred to the Proposed Project.***

Table G-4. Comparison of the Proposed Project to Phased Build Alternative

Issue Area	Proposed Project	Phased Build Alternative
System Transfer Capacity	4,800 MW	3,000 MW
Air Quality	More extensive demolition and construction. Structures would be closer to edge of ROW where sensitive receptors are located.	**Preferred** Reduced construction activity results in less emissions.
Cultural Resources	More extensive demolition and construction increases potential for disturbance to unknown cultural resources.	**Preferred** Less ground disturbance would reduce the potential to adversely affect unknown buried prehistoric and historical archaeological sites or buried Native American human remains. However, similar to the Proposed Project, this potential impact would remain adverse.
Geology and Soils	More extensive demolition and construction results in a greater potential for erosion.	**Preferred** Reduced level of construction would reduce the severity and duration of construction-related activities in the area, including the potential for erosion.
Land Use and BLM Realty	More extensive demolition and construction. Structures would be closer to edge of ROW where sensitive receptors are located.	**Preferred** Impacts to sensitive receptors would be reduced due to a lower level of construction. Operational visual impacts would be reduced by increasing the distance of structures from sensitive receptors at the edge of the ROW.
Noise	More extensive demolition and construction results in a greater level and duration of noise impacts to sensitive receptors.	**Preferred** Reduced level of construction that is generally located farther from the edge of the ROW. The severity of the substantial adverse noise effect for the nearest sensitive receptors would be reduced since the level of construction noise attenuates with increased distance from the source. However, similar to the Proposed Project, impacts from construction noise would remain adverse to nearby sensitive receptors.
Paleontological Resources	More extensive demolition and construction.	**Preferred** Less ground disturbance would reduce the potential to adversely affect paleontological resources.
Transportation and Traffic	More extensive demolition and construction.	**Preferred** Reduced level of construction would reduce the number and duration of construction-related vehicle trips in the area.
Visual Resources	Significant and unmitigable visual impacts on sensitive receptors (residences) during both construction and operation.	**Preferred** Visual impacts reduced in some locations due to greater distance of towers from residences. Possible elimination of 66 kV line relocation along Iowa Street. If the 66 kV system must be relocated, impacts would be reduced with the Iowa Street 66 kV Underground Alternative.
Water Resources and Hydrology	More extensive demolition and construction results in a greater potential for erosion and associated impacts to water quality.	**Preferred** Reduced level of construction would reduce the severity and duration of construction-related activities in the area, including the potential for erosion.

G.5 Definition of the BLM Environmentally Preferred Alternative

All three alternatives discussed in Section G.4 are considered to be environmentally preferred to the Proposed Project. The Phased Build Alternative would have its structures located closer to the center of the ROW, and would incorporate the tower locations of the Tower Relocation Alternative. Also, under the Phased Build Alternative, the Iowa Street 66 kV Underground Alternative may not be necessary, because relocation of the 66 kV subtransmission lines may or may not be required in Segment 1. As a result, ***the Phased Build Alternative is considered environmentally preferred overall.*** This alternative may not require any 66 kV subtransmission system modifications, but the distribution, telecommunications, and substation upgrades would be the same as for the Proposed Project. The Environmentally Preferred Alternative is illustrated in Figure G-1.

The second preferred alternative would be the combination of the Tower Relocation Alternative, the Iowa Street 66 kV Underground Alternative, and the Proposed Project for the segments unaffected by those two alternatives. The least environmentally preferred would be the Proposed Project.

G.6 No Action Alternative Compared to the Environmentally Preferred Alternative

The No Action Alternative is described in Section C.6, and its impacts are presented for each discipline in Section D. The No Action Alternative defines the transmission system that may be required in the absence of the Proposed Project, defining transmission options that SCE or other developers may pursue to achieve the objectives of the Proposed Project. The events or actions that are reasonably expected to occur in the foreseeable future without the West of Devers Upgrade Project include the following:

- **No Action Alternative Option 1:** In SCE's response to Data Request 7, SCE states, "…it is unlikely that SCE and the Morongo could reach an agreement for SCE's facilities to remain on the reservation in the absence of the WOD Upgrade Project." As a result of this stated expectation, this No Action option would include removal of all SCE facilities from Morongo land, and require the development of a transmission route from the Devers Substation to the El Casco Substation that would not use Morongo land. This No Action option would require the following components:
  - Installation of about 27 miles of additional new 500 kV circuit in the Devers-Valley corridor;
  - A new Beaumont Substation (500/220 kV) that would be located southwest of Beaumont;
  - Addition of 4 new 220 kV circuits from Beaumont Substation to El Casco Substation, using 1590 ACSR conductors as proposed by SCE; and
  - West of the El Casco Substation, this option would be the same as proposed by SCE.
- **No Action Alternative Option 2**: SCE's System Alternative 2 includes the addition of a new 500 kV circuit from SCE's existing Valley Substation to its Serrano Substation, as follows:
  - **No Major Upgrades to 220 kV System West of Devers.** The SCE WOD 220 kV system would be unchanged from the current system (4 circuits with current capacity; no removal of single-circuit towers; no construction of new towers). However, as defined in the approved Morongo agreement, the 220 kV segment between the Outlet Mall and the eastern border of the City of Banning would move south from its current location to be adjacent to I-10 and would be installed on new tubular steel poles (TSPs).
  - **Retain the WOD Interim Project**. Just west of the Devers Substation, SCE has installed series reactors on the four 220 kV transmission lines that extend west of Devers Substation and a Special Protection System (SPS) to prevent overloading of the existing WOD transmission lines. This equipment would be retained in the No Action Alternative Option 2.

- **No upgrades to 500 kV Devers-Valley System and no new substation**. The existing Devers-Valley No. 1 and No. 2 circuits are currently operating well below capacity, as shown in the power flow modeling attached to Appendix 5 (Alternatives Screening Report, Attachment 2). As shown in modeled Case 2 (CAISO 2024 Reliability Base Case with an added 1,400 MW imported from the Imperial Irrigation District), each Devers-Valley 500 kV circuit would use only 44% of its capacity, leaving over 2,000 MW available.
- **New 500 kV Line from Valley to Serrano Substations.** A new single-circuit 500 kV transmission line would be constructed along approximately 40.4 miles of existing transmission corridor from SCE's Valley Substation in the City of Romoland to its Serrano Substation in the City of Orange. The existing Valley-Serrano No. 1 transmission line occupies this corridor, and was constructed in 1986. The route includes about 9 miles within the Cleveland National Forest, in a designated utility corridor, where construction would have to be completed via helicopter. Upgrades would be required at the Valley and Serrano Substation.

G.6.1 Comparison of No Action Alternative Option 1 with Proposed Project

The environmental impacts of the No Action Alternative are presented in Section D for each environmental discipline. Impacts would primarily result from the requirement to construct a third 500 kV circuit, in addition to the Devers-Valley No. 1 and No. 2 lines, between Devers and a new Beaumont Substation. The most severe impacts would be the following:

- **Visual Resources**. The 500 kV line would cross the Pacific Crest Trail, pass through the San Jacinto and Santa Rosa National Monument, and pass through the San Bernardino National Forest within a designated wilderness area (in a transmission corridor). On Forest lands, the new circuit would have to be installed on newly constructed double-circuit towers (after removal of one existing single-circuit tower), which would be highly visible due to their height. In addition, the additional circuit would pass through the community of Cabazon, and the Cities of Banning and Beaumont.
- **Biological Resources**. The route passes through sensitive desert, mountain, and inland environments, with potential to affect listed plants, Peninsular bighorn sheep, and Stevens kangaroo rat, as well as other species.
- **Land Use and Recreation**. As described for visual resources, the new line would be highly visible in several valuable recreation areas. In addition, the proximity of both construction activities and the new circuit itself, to existing residences, would result in significant impacts to sensitive receptors between Cabazon and Beaumont.

Additional significant impacts to visual and biological resources would result from the construction and operation of the new 40-acre Beaumont Substation, just southeast of the city of Beaumont.

In conclusion, No Action Option 1 would create impacts substantially more severe than those of the Proposed Project.

G.6.2 Comparison of No Action Alternative Option 2 with Proposed Project

The environmental impacts of the No Action Alternative are presented in Section D for each environmental discipline. No Action Alternative Option 2 would not require the construction and operation of a new 500 kV circuit along 25 miles of the Devers-Valley corridor (as would be required for No Action Option 1). The first option would pass through designated wilderness, residential areas, and sensitive habitats. Impacts of No Action Option 2 would primarily result from the requirement to construct a second 500 kV circuit adjacent to the Valley-Serrano No. 1 lines, between the Valley Substation and Serrano Substation. The most severe impacts would be the following:

- **Visual Resources.** The 500 kV line would cross a number of parks and recreational areas. On Forest lands, the new circuit would have to be installed on newly constructed single-circuit towers. While one circuit already exists in the utility corridor, this area is remote and undeveloped, and the addition of a second high-voltage line would be highly visible. In addition, the new line would pass through Weir Canyon Regional Park, the community of Romoland, and the City of Orange, where visibility of a new 500 kV circuit would likely be significant.
- **Biological Resources.** The route passes through sensitive mountain and inland environments, with potential to affect listed plants, birds, and Stevens kangaroo rat, as well as other species.
- **Land Use and Recreation.** As described for visual resources, the new line would be highly visible in several important recreation areas. In addition, the proximity of both construction activities and the new circuit itself, to existing residences, would result in significant impacts to sensitive receptors in both Riverside County and the City of Orange.

In conclusion, No Action Option 2 would create impacts substantially more severe than those of the Proposed Project.

G.6.3 Conclusion Regarding No Action Alternatives

Therefore, because both of the No Action Alternatives would likely require construction of transmission lines with more severe impacts than those described for the Environmentally Preferred Alternative defined in Section G.5, the No Action Alternative is not found to be preferred to the Environmentally Preferred Alternative as defined in Section G.5.

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In Segment 1:
Re-use existing double-circuit towers and install new 795 Drake ACCR for two circuits from El Casco and Devers.

In Segment 2:
Re-use existing double-circuit towers and install new 795 Drake ACCR for two circuits from Devers.

In Segment 3:
Remove single-circuit towers and replace with new double-circuit towers. Retain double-circuit towers. Install 795 Drake ACCR on all 4 circuits.

In Segment 4:
Remove single-circuit towers and replace with new double-circuit towers. Retain double-circuit towers. Install 795 Drake ACCR on all towers.

In the western portion of Segment 5:
Where on Morongo land, all existing structures would be removed and the ROW would be relocated to the location shown. Two sets of new tubular steel poles would be constructed, and 795 Drake ACCR would be installed on all structures (4 circuits).

In the eastern portion of Segment 5:
The existing single-circuit structures would be removed and existing double-circuit structures would remain. Install 795 Drake ACCR on both the existing and new double-circuit structures (4 circuits).

In Segment 6:
Remove single-circuit towers and replace with new double-circuit towers. Retain double-circuit towers.
Install 795 Drake ACCR on all 4 circuits.

SAN BERNARDINO
VISTA
EL CASCO
DEVERS
MP 0
MP 5
MP 10
MP 15
MP 20
MP 25
MP 30
MP 35
MP 40
MP 45
SAN BERNARDINO COUNTY
RIVERSIDE COUNTY
HIGHLAND
SAN BERNARDINO
LOMA LINDA
REDLANDS
MENTONE
YUCAIPA
GRAND TERRACE
HIGHGROVE
CALIMESA
CHERRY VALLEY
BANNING
MORONGO VALLEY
DESERT HOT SPRINGS
WHITEWATER
CABAZON
RIVERSIDE
MORENO VALLEY
MARCH AFB
PERRIS
LAKEVIEW
SAN JACINTO
BEAUMONT
330
38
30
215
60
79
10
62
243
111

Sources: SCE 2014

N W E S

0 1.25 2.5 5 Miles

Substation
Milepost
City Boundary
Segment 1
Segment 2
Segment 3
Segment 4
Segment 5
Segment 6
Major Highways
Highways
Major Roads
County Boundary
BLM Land
Forest Service Land
Morongo Reservation

West of Devers Upgrade Project

Figure G-1
Environmentally Superior Alternative

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